



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,857	11/19/2003	David Khoury	718395.55	5165

27128 7590 10/06/2005

BLACKWELL SANDERS PEPER MARTIN LLP
720 OLIVE STREET
SUITE 2400
ST. LOUIS, MO 63101

EXAMINER

ORTIZ, ANGELA Y

ART UNIT	PAPER NUMBER
----------	--------------

1732

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/717,857

Applicant(s)

KHOURY, DAVID

Examiner

Angela Ortiz

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-24 is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakieski, USP 4,809,949 in view of Grove, USP 3,293,342 (of record).

The cited primary reference substantially teaches the basic claimed valve including a valve element comprising providing a metal valve body 12 molded or cast to provide a valve seat surface and dimensioned to receive a plug body. The valve plug element 10 is molded of a plastic polymer material, and is rotatably received within the valve body 10. The valve body 12 is provided with seat surfaces 14 and 15, and the plug element is molded with grooves that receive elastomeric seals. The seat surfaces of the valve body provided engages the valve plug element so that an effective seal is created when the plug element is biased into the valve body. See col. 3, line 45 to col. 4, line 60; col. 6, lines 20-30.

The cited primary reference does not teach casting the valve body and molding the plug element without machining per se, nor the molding of dual plastic materials for the plug element and the sealing ridge.

The added secondary reference teaches as conventional the feature of molding a valve sealing means of dual plastic materials wherein an annular seal member is formed of a rigid plastic material. The seal member is provided with a recess, and an

Art Unit: 1732

elastomeric material is molded within the recess, and formed with a sealing ridge to create an effective seal when engaged by an opposing surface. A dual material seal prevents the need for adding o-rings to create a similar effect, thus making assembly easier. See col. 2, lines 15-72 and claims 1-6.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to mold the plug member of the primary reference of two materials, in view of the added reference, for avoiding the insertion of additional o-rings and making assembly of the valve more facile.

Note that the primary reference does not have a positive statement that the valve parts are machined; thus the limitation of the molding without machining is deemed met by the applied reference, and would further have been obvious to include for avoiding an additional processing step.

With respect to claims 2 and 4-7, see the primary reference wherein valve body 12 includes a conical cavity, valve seat surfaces, and the plug element includes sealing ridges, see figures 2-3, col. 4, lines 5-40.

With respect to claims 3 and 18, note that the use of the claimed materials, namely metal and dual plastic materials, is disclosed in both references as discussed above.

With respect to claim 8, note the configuration of the valve in USP 4,808,949 in figures 2-3 and col. 5, lines 25-35.

Art Unit: 1732

With respect to claims 9-10, 14-17, 19-20, the shape and number of the sealing ridges is deemed an obvious improvement dependent on the use of the finally molded article and is within the choice of the practitioner.

With respect to claims 11-12, note that the added reference USP 3,293,342 shows as conventional the use of a compression spring at the end of seal member 21; it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a spring for biasing the seal as desired.

Allowable Subject Matter

Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 22 -24 are allowed.

Response to Arguments

Applicant's arguments filed July 18, 2005 have been fully considered but they are not persuasive.

Applicant argues each reference, stating that the primary reference does not teach a seal carried by and movable with the valve seat surface 23; and that there are no seals carried by the plug element but rather the nipple 20. The claims do not require this limitation; applicant has not amended the claims to limit what is intended by the

Art Unit: 1732

valve seat surface in the claims – the arguments rely heavily on the specification, and applicant is reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues that the structure itself would be destroyed if combined as suggested. The examiner strongly disagrees with this statement; the molding technique is well within the level of ordinary skill in the art for achieving the desired seals, particularly when the plug is provided with the number of recesses as shown in the prior art – filling such recesses would be curative.

Applicant alleges that the applied prior art does not teach overmolding a seal into a rotary plug. A rotational (rotary) plug is shown in the primary reference with seals, and Grove provides motivation for molding seals on a valve body. Hindsight was not used in making the combination.

With respect to claims 2 and 4-7, see the primary reference wherein valve body 12 includes a conical cavity, valve seat surfaces, and the plug element includes sealing ridges, see figures 2-3, col. 4, lines 5-40.

With respect to claims 3 and 18, note that the use of the claimed materials, namely metal and dual plastic materials, is disclosed in both references as discussed above.

With respect to claim 8, note the configuration of the valve in USP 4,808,949 in figures 2-3 and col. 5, lines 25-35.

Art Unit: 1732

With respect to claims 9-10, 14-17, 19-20, the shape and number of the sealing ridges is deemed an obvious improvement dependent on the use of the finally molded article and is within the choice of the practitioner.

With respect to claims 11-12, note that the added reference USP 3,293,342 shows as conventional the use of a compression spring at the end of seal member 21; it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a spring for biasing the seal as desired.

With respect to claims 21-24, such is deemed moot.

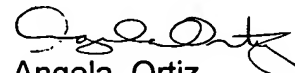
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela Ortiz whose telephone number is 571-272-1206. The examiner can normally be reached on Monday-Thursday 9:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianne can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1732

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Angela Ortiz
Primary Examiner
Art Unit 1732

ao